

The authentication information can be in the form of a user code (as described below) or in the form of a decryption key (that can be unique to the electronic device 16 or common for all electronic devices 16 that subscribe for services for that particular live sporting event). The decryption key can be used to decrypt encrypted content in the wireless RF transmission.

[0399] Once all the data for setting up the electronic device 16 has been downloaded to the PC 300, the data is transferred to the electronic device 16 via the USB interface 104. At this point the electronic device 16 is ready for use. When activated by the spectator at the live sporting event, the electronic device 16 will pick up the wireless RF transmission and it will use the decryption key to adequately decode the data. Also, the electronic device 16 will also detect in the wireless RF transmission the “trigger” that will unlock for the spectator to see and access the latent ancillary data. Therefore, the spectator can see advertisement information, conduct on-line shopping etc.

[0400] The online transaction described earlier can be used as a mechanism to communicate to the server 304 the identity of the electronic device 16. So as users are performing on-line purchases of service delivery to the respective electronic devices 16, the server 304 is building a list of the electronic devices 16 that are authorized to receive the service. This list is kept a storage medium of the server 304, such as in a database (not shown). Just prior the live sporting event, the server 304 that holds in its database the list of all the electronic devices 16 (electronic identifiers) that have purchased service for the event, transfers the list to the authentication database 502. Those identifiers are then included in the wireless RF transmission as previously described.

[0401] The server 304 can also be designed to generate the user code described earlier, which the spectator needs to enter on the user interface of the handheld electronic device 16 in order to gain access to some or all of the content carried in the wireless RF transmission. The server implements the user code generator 1008 shown in FIG. 26. During the interaction between the PC 300 and the server 304, the electronic identifier 1002 is delivered to the server 304. The electronic identifier 1002 is extracted by the authentication processor 1006 of the handheld electronic device 16, communicated to the PC 300 and then transmitted to the server 304. The user code generator 1008 receives this information and processes it along with the event code (single code or compound code for multiple service levels) to produce a user code. In the case of a compound event code, which is made up of several different service level codes, the process is run several times with a different service level code at each cycle. The output of the process, which is a user code, is communicated back to the PC 300. The user code appears on the display of the PC 300 such that the user can take note of it and can print it or otherwise make note of it, or it can be sent in the form on an e-mail to the user to a specified e-mail address or via any other suitable method. The user code can also be loaded directly in the handheld electronic device 16 as described above. This obviates the need for the user to manually enter the user code at the handheld electronic device 16.

[0402] Note that in the case the user has created an account on the server 304, the electronic identifier 1002 may be stored in the account and there is no need to extract it from the handheld electronic device and communicate it to the server 304. In this form of implementation, the user logs on

as described earlier and he/she automatically obtains the user code, that is computed by using the electronic identifier 1002 stored in the account and the event code.

[0403] Note that another possibility to deliver a user code is via a telephone system. Here the user dials a predetermined number and when prompted enters the on the dial pad the electronic identifier 1002. The user code generator at the telephone processing site generates a user code on the basis of the electronic identifier 1002 and the event code and communicates it to the user via voice synthesis. Also if an account for the user is created at the telephone processing site, the electronic identifier 1002 may be stored and there is no need to enter it again for each transaction.

[0404] In a possible variant the electronic device 16 can be designed with a wireless communication capability, such as via a Bluetooth technology or Wireless Fidelity (WiFi) technology to allow the electronic device 16 to communicate directly with the server 304 via any local wireless reception station also called “hot spots”. In this fashion, the electronic device 16 does not require a connection to PC 300 to be set up by the server 304. Under this variant, all the commands and service selection choices can be made directly from the electronic device 16.

[0405] Note that when the electronic device 16 is provided with bidirectional communication capability, on-line purchases can be made by allowing the electronic device 16 to communicate over a cellular network with the server 304 over which the user record resides. Here, the on-line purchasing process is as described earlier, where the spectator attending the live sporting event chooses the product or service to buy and connects with the server 304 over the Internet 302 such as to complete the transaction. The transaction would include authenticating the user by providing a user ID and password. Assuming the payment instrument information and shipping information are already on record on the user account, the transaction completes.

[0406] Although various embodiments have been illustrated, this was for the purpose of describing, but not limiting, the invention. Various modifications will become apparent to those skilled in the art and are within the scope of this invention, which is defined more particularly by the attached claims.

1. A handheld electronic device for use at a venue hosting a live sporting event, comprising:

- a) a receiver for receiving a wireless RF transmission conveying:
 - i) a plurality of video streams conveying live sporting event content, the live sporting event content including moving images of action occurring at the live sporting event held at the venue;
 - ii) physiological data associated with a player involved in the live sporting event held at the venue.
- b) a display;
- c) a user interface for selecting a video stream among said plurality of video streams to be displayed on said display;
- d) said handheld electronic device capable of processing the physiological data for displaying physiological information associated with the player on said display.